

We claim:

1. A display device for a graphic movably mounted in a housing to display a plurality of images through a lens, comprising:
 - a housing having a lens in an opening;
 - a cam assembly moving the graphic in an oscillating pattern from a first to a second position and configured to minimize dwell time as the graphic reverses direction and the image displayed through the screen changes.
2. The device of claim 1, wherein:
 - said cam defines a closed loop of movement that is not fully circular.
3. The device of claim 2, wherein:
 - said cam moves on a flatter path as the graphic reverses direction.
4. The device of claim 3, wherein:
 - said cam moves to a more rounded path after the graphic reverses direction.
5. The device of claim 4, wherein:
 - said cam accelerates the graphic after a change in its direction.
6. The device of claim 2, wherein:
 - said cam comprises a member defining a groove which constitutes said closed loop.
7. The device of claim 6, wherein:
 - said groove comprises an inner and an outer wall.
8. The device of claim 7, further comprising:
 - a sliding bar in said housing having a first extending member directed between said inner and outer walls, said sliding bar also connected to the graphic to drive the graphic back and forth.
9. The device of claim 8, wherein:
 - said walls define a closed loop.
10. The device of claim 8, wherein:
 - said first extending member is driven off both said inner and outer walls.
11. The device of claim 10, wherein:
 - said first extending member is driven off either said inner or outer walls at any given time.

12. The device of claim 8, further comprising:
a second extending member from the opposite side of said sliding bar and extending into an opening in the graphic.
13. The device of claim 1, wherein:
a biasing device acting on said graphic to force it toward said lens.
14. The device of claim 13, wherein:
said biasing device comprises at least one cantilevered finger pressing against said graphic
15. The device of claim 14, wherein:
said housing further comprises a guide to help control said oscillating movement of the graphic.
16. The device of claim 15, wherein:
said guide comprises a plurality of aligned ribs in said housing.
17. A display device for a graphic movably mounted in a housing to display a plurality of images through a lens, comprising:
a housing having a lens in an opening;
a biasing device to force the graphic toward said lens.
18. The device of claim 17, wherein:
said biasing device comprises at least one cantilevered finger pressing against the graphic
19. The device of claim 18, wherein:
said finger is mounted to said housing.
20. The device of claim 18, wherein:
said finger is mounted to a base that is secured to said housing.